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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/660,143	09/11/2003	Steven W. Githens	ROC920030276US1	4972

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IBM CORPORATION, INTELLECTUAL PROPERTY LAW  
DEPT 917, BLDG. 006-1  
3605 HIGHWAY 52 NORTH  
ROCHESTER, MN 55901-7829

EXAMINER
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NUNEZ, JORDANY

ART UNIT	PAPER NUMBER
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2175

NOTIFICATION DATE	DELIVERY MODE
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07/09/2008

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

GMCCLELLAN@PATTERSONSHERIDAN.COM

<b>Office Action Summary</b>	<b>Application No.</b> 10/660,143	<b>Applicant(s)</b> GITHENS ET AL.	
	<b>Examiner</b> Jordany Núñez	<b>Art Unit</b> 2175	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 01 May 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4, 7-25 and 28-47 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 7-25, 28-47 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

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### **DETAILED ACTION**

In view of the Appeal Brief filed on 05/01/2008, PROSECUTION IS HEREBY REOPENED. A new rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

/Stephen S. Hong/

Supervisory Patent Examiner, Art Unit 2178

### ***Claim Objections***

Claims 43-47 are objected to because of the following informalities: the recitation "one processor a memory" (line 1) should be changed to "one processor and memory". Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-4, 7-9, 11-17, 19-25, 28-30, 32-38, 40-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cox et al. (US20020156806, Cox) in view of Baudel (US6928436).

As to claim 1, 2, 11, 19-21:

Cox shows a computer implemented method of generating a graphical representation of data, comprising:

receiving abstract attributes values comprising at least a selection of a requested graphical representation type (page 7, paragraph [0065],) for a selected data set (page 7, paragraph [0062]);

providing and selecting an abstract data structure template (e.g., Bar Chart view object) from a plurality of abstract data structure templates (e.g., dynamic tables, text objects) (abstract), each being specific to a different graphical representation type and defining a plurality of template attributes for

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generically representing an abstract graphical representation in the respective different graphical representation type, wherein the selected abstract data structure template is specific to the selected graphical representation type (page 7, paragraph [0072], lines 19-23);

generating, on the basis of the received abstract attributes values and the selected abstract data structure template, an abstract data structure defining a plurality of abstract attributes abstractly representing the data set in the graphical representation (figure 5, element 510, and corresponding text);

retrieving and providing transformation rules for transforming the abstract data structure into a concrete data structure, the transformation rules comprising a plurality of subsets of transformation rules each subset describing graphical attributes of a requested graphical representation type (page 5, paragraph [0044], lines 12-23);

selecting a subset of the plurality of subsets of transformation rules in accordance with a requested, graphical representation type (page 5, paragraph [0044], lines 12-23); an

selecting transformation rules (e.g., interaction desired programmed by author) for transforming the abstract data structure into a concrete data structure from a plurality of transformation rules, the transformation rules describing graphical attributes of the requested graphical representation type (page 5, paragraph [0044], lines 12-23);

and generating, on the basis of the abstract data structure and the selected subset of transformation, a concrete data structure defining a concrete graphical representation in a graphics rendering language using the transformation rules; wherein generating the concrete data structure is done by operation of a computer processor (figure 8, and corresponding description); and

transforming the abstract data structure into a plurality of concrete data structures, wherein transforming the abstract data structure is done by operation of a computer processor (page 8, paragraph [0080], lines 6-19).

Cox fails to specifically show: the transformation rules being specific to a different graphics rendering language, whereby the transformation rules support a plurality of graphics rendering languages; and transforming the abstract data structure into a plurality of concrete data structures, each concrete data structure corresponding to a different graphics rendering language.

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In the same field of invention, Baudel teaches: a method for graphically rendering information of a database. Baudel further teaches: a visualization of information stored in a database (col. 1, l. 7-13), a visualization of a data table being a program that given as input any instance of a data table, outputs a uniquely defined sequence of graphic language instructions (col. 3, l. 48-50), a graphic language being a set of programming language functions and data types that enable describing images on a computer screen, examples of which OpenGL, Poscript, Java3D (col. 3, lines 22-29), and a DECORATION process setting graphic attributes for each record being drawn, said attributes including certain illumination models described in languages such as OpenGL and Java3D (i.e., because this process sets graphics attributes in languages such as OpenGL and Java3D, the visualization described inherently may be output in those languages).

Thus, it would have been obvious to one of ordinary skill in the art, having the teachings of Cox and Baudel at the time that the invention was made, to have combined the visualization of information stored in a database, a visualization of a data table being a program that given as input any instance of a data table, outputs a uniquely defined sequence of graphic language instructions, a graphic language being a set of programming language functions and data types that enable describing images on a computer screen, examples of which OpenGL, Poscript, Java3D, and a DECORATION process setting graphic attributes for each record being drawn, said attributes including certain illumination models described in languages such as OpenGL and Java3D of Baudel with the method as taught by Cox.

One would have been motivated to make such combination because a way to provide a simple but flexible user interface for accessing an available visualization would have been obtained and desired, as expressly taught by Baudel (column 1, lines 41-43).

As to claim 3, 13, Cox shows:

The method of claim 2, wherein the requested graphical representation type is one of a bar chart, a line chart, a pie chart, a scatter plot and a combination thereof (figure 8, and corresponding description).

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As to claim 4, 14, Cox shows:

The method of claim 2, wherein the plurality of abstract data structure templates is associated with a particular data source of the data (page 7, paragraph [0059]).

As to claim 7, Cox shows:

The method of claim 1, wherein the requested graphical representation type is one of a bar chart, a line chart, a pie chart, a scatter plot and a combination thereof (page 8, paragraph [0079], lines 8-12).

As to claim 8, 16, Cox shows:

The method of claim 1, wherein at least one of the abstract data structure and the concrete data structure is defined in Extensible Markup Language (XML) (page 4, paragraph [0036], lines 4-7, page 10, paragraph [0102], lines 1-8).

As to Claims 9, 17, Baudel shows:

the concrete data structure is defined in a vector-based graphics language (c. 3, l. 26-29) (e.g., OpenGL).

As to claim 15, Cox shows:

The method of claim 11, wherein generating the concrete data structure using the transformation rules comprises:

selecting a subset of the transformation rules in accordance with the requested graphical representation type (page 5, paragraph [0044], lines 12-23);

and generating the concrete data structure using the subset of the transformation rules (page 8, paragraph [0080], lines 6-19).

As to claim 12, Cox shows:

The method of claim 11, further comprising:

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rendering the data set, as described in the graphics rendering language (e.g., java applets), in a graphic (figure 8, and corresponding description).

Claims 22-25, 28-30, 32-38, 40-47 are rejected using the same line of reasoning used for the rejection of claim 1-9, 11-17, 19-21.

Claims 10, 18, 31, 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cox in view of Baudel, further in view of Koselj et al (US7027056, hereinafter Koselj).

As to Claims 10, 18, 31, 39

Cox and Baudel show a method, computer readable medium, and computer substantially as claimed, as specified above.

Cox and Baudel fail to specifically show: the vector-based graphics language is one of Vector Markup Language (VML), Scalable Vector Graphics (SVG), and Hypertext Markup Language (HTML) Image Maps.

In the same field of invention, Koselj teaches: a graphics engine and display driver integrated chip. Koselj further teaches: vector graphics language such as SVG, being used to send data to mobile and small area displays, while vector graphics language such as OpenGL being used for gaming APIs (i.e., SVG and OpenGL are obvious variations of vector graphic languages).

Thus, it would have been obvious to one of ordinary skill in the art, having the teachings of Cox, Baudel, and Koselj at the time that the invention was made, to have combined the vector graphics language such as SVG being used to send data to mobile and small area displays, while vector graphics language such as OpenGL being used for gaming APIs of Koselj with the method, computer readable medium, and computer as taught by Cox and Baudel.

One would have been motivated to make such combination because a way to have small-area displays which have size, weight, and power limitations properly display data would have been obtained and desired, as expressly taught by Koselj (column 1, lines 52-58).



References to specific columns, figures or lines should not be limiting in any way. The entire reference provides disclosure related to the claimed invention.

### ***Response to Arguments***

Applicant's arguments with respect to the claims above have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Dettinger et al.	[U.S. 7085757]
Lennon et al.	[U.S. 20040015783]
Vedula et al.	[U.S. 6823495]
Miyadi	[U.S. 7009609]
Chen et al.	[U.S. 6668354]
Makita	[U.S. 5611034]

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jordany Núñez whose telephone number is (571)272-2753. The examiner can normally be reached on Monday Through Thursday 9am-7:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Weilun Lo can be reached on (571)272-4847. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Stephen S. Hong/

Supervisory Patent Examiner, Art Unit  
2178

JN

7/3/2008

/William L. Bashore/  
Primary Examiner, Art Unit 2175